



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.         | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 10/713,771              | 11/14/2003  | Isaac J. Mosgrove    | 612-65525           | 8766             |
| 24197                   | 7590        | 03/30/2005           | EXAMINER            |                  |
| KLARQUIST SPARKMAN, LLP |             |                      | YANG, CLARA I       |                  |
| 121 SW SALMON STREET    |             |                      |                     |                  |
| SUITE 1600              |             |                      | ART UNIT            |                  |
| PORTLAND, OR 97204      |             |                      | PAPER NUMBER        |                  |
|                         |             |                      | 2635                |                  |

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/713,771

Applicant(s)

MOSGROVE ET AL.

Examiner

Clara Yang

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 27-31 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-26 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04/21/04, 11/04/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-26 and 32, drawn to a vehicle key management system comprising a key container for storing a vehicle key and a portable device for accessing the key container, classified in class 340, subclass 5.21.
  - II. Claims 27-29, drawn to an organizational data structure of a key management system, classified in class 707, subclass 102.
  - III. Claims 30-31, drawn to a key container having a pair of solenoids and movable locking members, classified in class 70, subclass 277.
2. Inventions of Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the essential distinguishing parts of Group I are the key container having a memory for storing access events, the portable device for accessing at least one key container, and a key tag attached to a vehicle key for communicating with the key container. The subcombination (i.e., Group II) has separate utility such as an inventory management system or a security management system for a company with employees having various levels of security clearances.
3. Inventions of Group I and Group III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed

Art Unit: 2635

does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the essential distinguishing parts of Group I are the key container having a memory for storing access events, the portable device for accessing at least one key container, and a key tag attached to a vehicle key for communicating with the key container. The subcombination (Group III) has separate utility such as a locker for unattended delivery.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Michael Girard on 16 March 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-26 and 32. Affirmation of this election must be made by applicant in replying to this Office action. Claims 27-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### *Double Patenting*

7. Claims 1-6 and 7-20 of this application conflict with claims 1-6 and 7-14 of Application No. 10/356,383 and with claims 1 and 2-20 of Application No. 10/356,655. 37 CFR 1.78(b)

Art Unit: 2635

provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim 1 of this application is broader in scope than claims 1 and 7 of copending application 10/356,383 and claims 1, 2, and 20 of copending application 10/356,655.

Claims 7-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7-14 of copending Application No. 10/356,383 and claims 2-19 of copending Application No. 10/356,655. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 7 of this application is generally broader than the copending claims of both parent applications. Though claim 7 of this application requires that the portable electronic access device be an open architecture device, the examiner takes Official Notice that using devices such as cell phones to access lock boxes is well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electronic access device as claimed in the copending parent applications because open architecture devices make the system user-friendly by eliminating the need for a user to carry an additional device for accessing the lock box.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Allowable Subject Matter*

8. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if (1) the claims are rewritten in independent form including all of the limitations of the base claim and any intervening claims and (2) a terminal disclaimer is filed to overcome the double patenting rejection of the base claim.

9. Claims 21-26 are allowed.

The following are statements of reasons for the indication of allowable subject matter:

- ◆ Regarding claims 21-25, the prior art of record fails to teach or suggest a key management system comprising: (1) a key set that includes a vehicle key and a key tag attached to the vehicle key, wherein the key tag has a memory for storing an identifier and an audit trail; (2) a key container located on or near a vehicle, wherein the key container has an electronic lock for securing a key set stored in the key container's storage area and detects the key tag when the key set is properly stored; and (3) a portable electronic access device for accessing the key container, wherein the access device has a memory that is updated with the key tag's identifier upon successful access of the key container and removal of the key set from the key container's storage area.
- ◆ Regarding claim 26, the prior art of record fails to teach or suggest a key management system comprising: (1) a key container located on or near a vehicle, wherein the key container has an electronic lock for securing a key set stored in the key container's storage area; (2) a key set that includes a vehicle key and a key tag attached to the vehicle key, wherein the key tag has a memory for storing an identifier and recording data when a user accesses the key storage area; and (3) an electronic key for accessing the key container and communicating with the key tag via the key container, wherein the electronic key has a memory.

*Claim Objections*

10. Claims 1, 7, 17, 21, and 26 are objected to because of the following informalities: All the claims have the phrase "capable of" or "being capable of". Because it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation over the prior art, the examiner suggests removing all occurrences of the phrase. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 2, and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Wunderlich (US 6,611,232).

Referring to claim 1, Wunderlich's key management system, as shown in Figs. 1, 2, and 5, comprises (a) lock box unit 110 (i.e., a key container) attached to vehicle 160 and having key box 210 (i.e., key storage area) for storing vehicle key 215, a lock for securing key box 210, and a memory 550 (see Col. 4, lines 53-67; Col. 5, lines 1-7; and Col. 6, lines 1-30). In Col. 6, lines 1-17, Wunderlich suggests using identification device 430, which includes an infrared (IR) reader device or key pad, as a security device that prevents access to key box 210; thus identification device 430 and the lock of lock box unit 110 form an electronic lock, and Wunderlich's system also comprises (b) an IR transmitter or electronic key having an identification code stored in a memory and a transmitter for accessing key box 210 via a wireless link. Wunderlich discloses that (c) memory 550 stores received identification codes and the times of access (i.e., access events) for key box 210 (see Col. 6, lines 18-30).

Regarding claim 2, Wunderlich teaches that the communication link between lock box unit 110's electronic lock and key is an IR link, as explained in claim 1.

Referring to claim 32, Wunderlich's key management system, as shown in Figs. 1, 2, and 5, comprises: (a) vehicle keys 215 for a plurality of vehicles on a vehicle lot (see Col. 3, lines 11-12); (b) a lock box unit 110 attached to each vehicle, wherein each lock box unit 110 has a key box 210 for storing a vehicle key (see Col. 3, lines 12-14 and Col. 4, lines 25-28); (c) an IR transmitter (i.e., electronic access device) assigned to a user for unlocking lock box unit 110 if authorized (see Col. 3, lines 39-44 and Col. 6, lines 1-17); and (d) a database stored on central computer 170 and containing the identity of each vehicle on the lot, the unique address of each vehicle's lock box unit 110, and the identification of the users (see Col. 5, lines 8-17 and Col. 6, lines 11-17 and 26-31). Because Wunderlich teaches that lock box unit 110 is able to prevent access to particular authorized persons based on a received identification (see Col. 6, lines 15-17), the identification of the users also functions as a user's access privilege; thus Wunderlich's database stored in central computer 170 further includes access privileges of the users. Wunderlich's IR transmitters must be programmable in order to accept a user's identification (i.e., information from the database) and to enable a user to access a lock box unit by using the IR transmitter (see Col. 6, lines 8-10 and 15-17).

13. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Greenman (US 2003/0179075).

Referring to claim 1, Greenman teaches a property access system, as shown in Figs. 1a and 2, comprising: (a) lock 101 (i.e., a key container) located proximal to a vehicle having a key compartment 105 for storing vehicle key 121, an electronic lock for securing key compartment 105, and a microcontroller 119 for storing authorized access codes and controlling the electronic lock (see Sections [0026], [0028], [0031], and [0038]); and (b) an electronic key, such as a personal digital assistant (PDA) or cell phone, for communicating with lock 101 via IR or RF, wherein the



Art Unit: 2635

electronic key has a memory for storing access codes (see Sections [0028], [0037] and [0061]). Greenman discloses that microcontroller 119 opens the electronic lock and (c) records the access code and time of entry (i.e., access events) when a received access code matches an encrypted access code (see Sections [0038] and [0069]); thus microcontroller 119 must have a memory.

Regarding claims 2-5, Greenman teaches in Sections [0011], [0037], [0061], and [0067], that lock 101 and an electronic key communicates via IR (as called for in claim 2) or RF (as called for in claim 3) and that the electronic key is a pocket-sized computer (i.e., a PDA) or a smart cell phone (as called from in claims 4 and 5 respectively). Greenman's PDS and smart cell phone must be open architecture devices in order to control Greenman's lock 101.

*Claim Rejections - 35 USC § 103*

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2635

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wunderlich (US 6,611,232) or Greenman (US 2003/0179075) as applied to claim 1 above, and further in view of Pires (US 6,131,808).

Regarding claim 6, both Wunderlich and Greenman omit teaching a key tag associated with the vehicle key, wherein the key tag has an electronically stored identifier and being detectible by the lock box when placed in the key storage area.

In an analogous art, Pires teaches a key storage system 1 comprising: (a) at least one key set formed by key 4, wire 3, and key tag 2 (i.e., key tag), wherein key tag 2 has electronic memory device 53 that stores an electronically readable identifier and provides an electrical contact portion (see Col. 4, lines 56 - 57 and Col. 5, lines 27 - 64); and (b) housing 17 or key container having a storage area that includes a plurality of stations 6 for detecting key tag 2 when key tag 2 is inserted properly into receptacle 7 (see Col. 4, lines 20 - 24; Col. 5, lines 27 - 37; and Col. 7, lines 15 - 18). Per Pires, each station 6 has a plunger 29 and solenoid 23 (i.e., electronic lock) for preventing removal of a key set by an unauthorized person, and the same arrangement is used for securing housing 17 (see Col. 5, lines 65 - 67 and Col. 6, lines 1 - 10). Pires also discloses that station 6 communicates with key tag 2 when the electrical contact portion of key tag 2's memory device 53 is placed to complete an electrical circuit of station 6 (see Col. 5, lines 27 - 37 and Col. 8, lines 22 - 43). Furthermore, system 1 of Pires maintains a database on when housing 17 is accessed, the identity of a key tag 2 that is removed and the time of removal, and the identity of a key tag 2 that is returned and the time of return (see Col. 1, lines 48 - 50; Col. 5, lines 33 - 37; and Col. 9, lines 31 - 41). In other words, system 1 updates its database with at least the identifier of a key tag 2 when housing 17 is successfully accessed and key tag 2 is removed from station 6.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lock box system of Wunderlich or Greenman per the teachings of Pires since a key having a key tag and a key receptacle that detects and communicates with the key tag enable an automobile dealership to ensure only authorized removal of keys and to determine who has removed a key, which key has been removed, and when the key has been removed (see Pires, Col. 1, lines 15 - 21 and 39 -41), thereby reducing the likelihood of lost keys and vehicle theft.

17. Claims 7-13 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenman (US 2003/0179075) in view of Pires (US 6,131,808) and Danler (US 5,280,518).

Referring to claims 7-11, 17, and 18, Greenman discloses a vehicle key access system, as explained above in the rejection of claim 1. Regarding claim 7, Greenman's system, as shown in Fig. 1, comprises: (a) key 121 (see Section [0026]); (b) lock 101 (i.e., a key container) that is located on the vehicle and having key compartment 105 secured by an electronic lock (see Sections [0026] and [0031]); and (c) an open architecture PDA or cell phone, as explained above in the rejection of claim 1, having a memory that stores at least one access code (see Sections [0011] and [0061]). Greenman, however, omits teaching the following: (1) key 121 is associated with a key tag having an electronically readable identifier stored thereon and an electronic contact portion; (2) lock 101 detects a key tag when the key set formed by key 121 and the key tag are properly stored in key compartment 105; and (3) the memory of the PDA or cell phone is updated with at least the key tag's identifier when lock 101 is successfully accessed and the key set is removed from key compartment 105. Consequently, Greenman also fails to teach that: (4) lock 101 has a memory for storing at least the key tag's identifier (as called for in claim 8); and (5) lock 101 communicates with the key tag when the electrical contact portion of the key tag is

Art Unit: 2635

placed in electrical contact with the key container (as called for in claim 17). In addition, Greenman is silent on: (6) lock 101's memory including a list that identifies an unauthorized access device or an unauthorized user (as called for in claim 9); (7) a PDA's or cell phone's memory storing the approximate time when the key tag removed from key compartment 105 (as called for in claim 10) and when the key was returned to key compartment 105 (as called for in claim 11); and (8) lock 101 and a PDA or cell phone participating in a challenge-response exchange when a user attempts to access lock 101 (as called for in claim 18)

In an analogous art, as called for in claim 7, Pires teaches a key storage system 1 comprising: (a) at least one key set formed by key 4, wire 3, and key tag 2 (herein after "key tag 2"), wherein key tag 2 has electronic memory device 53 that stores an electronically readable identifier and provides an electrical contact portion (see Col. 4, lines 56-57 and Col. 5, lines 27-64); and (b) housing 17 or key container having a storage area that includes a plurality of stations 6 for detecting key tag 2 when key tag 2 is inserted properly into receptacle 7 (see Col. 4, lines 20-24; Col. 5, lines 27-37; and Col. 7, lines 15-18). Per Pires, each station 6 has a plunger 29 and solenoid 23 (i.e., electronic lock) for preventing removal of a key set by an unauthorized person, and the same arrangement is used for securing housing 17 (see Col. 5, lines 65-67 and Col. 6, lines 1-10). Pires also discloses that station 6 communicates with key tag 2 when the electrical contact portion of key tag 2's memory device 53 is placed to complete an electrical circuit of station 6 (see Col. 5, lines 27-37 and Col. 8, lines 22-43), as called for in claim 17. Furthermore, system 1 of Pires maintains a database on (1) when housing 17 is accessed, (2) the identity of a key tag 2 that is removed and the time of removal, and (3) the identity of a key tag 2 that is returned and the time of return (see Col. 1, lines 48-50; Col. 5, lines 33-37; and Col. 9, lines 31-41), as called for in claim 8. In other words, system 1 updates its database with at least

Art Unit: 2635

the identifier of a key tag 2 when housing 17 is successfully accessed and key tag 2 is removed from station 6. Pires, however, is silent on updating a portable electronic access device with key tag 2's identifier when key tag 2 has been removed (as called for in claim 7). Pires also fails to teach the limitations of claims 9-11 and 18.

In another analogous art, Danler teaches a key management system, as shown in Fig. 1, comprising: (a) key 20; (b) lock box 12 having a key container 64 secured by locking solenoid 66 (see Col. 4, lines 39-42 and Col. 6, lines 5 - 10); and (c) electronic key 14 (i.e., portable electronic access device) for accessing key container 64, wherein electronic key 14 has a key memory 148 that is updated with lock box 12's identifier when key container 64 is successfully accessed (see Col. 16, lines 20-28), as called for in claim 7. Danler's lock box 12 also includes a memory that stores a list of unauthorized electronic keys/access devices (see Col. 10, lines 65 - 58 and Col. 11, lines 1 - 8), as called for in claim 9. In addition, Danler teaches that electronic key 14 is able to store lock box 12's access log, which includes the date and time of each access (see Col. 21, lines 55-64). Here it is understood that lock box 12 must be accessed in order to return the key. Thus by downloading lock box 12's access log, Danler's electronic key 14 stores the approximate times when electronic key 14 accessed lock box 12 to retrieve and return the key, as called for in claims 10 and 11. Finally, Danler discloses that electronic key 14 and lock box 12 participate in a challenge-response exchange when a user attempts to access lock box 12 (see Col. 14, lines 37-44), as called for in claim 18.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the key and key receptacle of Greenman as taught by Pires because a key having a key tag 2 and a lock 101 that detects and communicates with key tag 2 enable an automobile dealer to ensure only authorized removal of keys and to determine who

Art Unit: 2635

has removed a key, which key has been removed, and when the key has been removed (see Pires, Col. 1, lines 15-21 and 39 -41), thereby reducing the likelihood of lost keys and vehicle theft. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Greenman and Pires as taught by Danler because (1) a challenge-response exchange between lock 101 and a PDA or cell phone enhances security (see Danler, Col. 14, lines 22-25) and (2) a lock 101 that updates a PDA or cell phone with at least the identifier of key tag 2 when key tag 2 is removed from the key receptacle and when the PDA or cell phone successfully removed and returned the key enables system 1 to use the PDA or cell phone for audits (see Danler, Col. 2, lines 37-42).

Regarding claim 12, Greenman suggests setting up a central computer 420 within central facility 419 for administering the system by allowing an authorized user (or administrator) to generate access codes and usage reports for each user or user groups (see Sections [0029], [0033], [0034], [0052], [0072] and [0073]). Because central computer 420 is able to generate usage reports (i.e., track a user's access activity), central facility 419 must have a database.

Regarding claim 13, Greenman teaches that the access codes generated by central computer 420 are valid for particular time periods (see Sections [0030], [0033], [0035], [0059], [0064], and [0072]). Thus, if a user fails to access lock 101 within the specified time period, causing the access code to expire, the user must use central computer 420 to generate a new access code for a new time period (i.e., reestablish his or her expired access privileges).

Regarding claim 19, Greenman's PDA or cell phone stores a user's access codes that are set to expire periodically (see Sections [0011], [0030], [0061], and [0068]).

Regarding claim 20, Greenman's lock 101 has a controller 119 for generating valid access codes that are used to determine whether or not to grant access to a user by comparing the

Art Unit: 2635

user's access code with those stored in controller 119 (see Sections [0031], [0038], [0053]-[0061], and [0064]). Controller 119 must temporarily store each generated access code in order to determine if a user's access code is valid.

18. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenman (US 2003/0179075) in view of Pires (US 6,131,808) and Danler (US 5,280,518) as applied to claim 7 above, and further in view of Maloney (US 5,801,628).

As explained above in the rejection of claim 19, Greenman, Pires, and Danler teach a user using a PDA or cell phone to communicate the user's access code but fail to suggest the user using the PDA or cell phone to select and communicate a code indicating the purpose of the access.

In an analogous art, Maloney teaches a system comprising: (a) a key set having a vehicle key 202 and a identification assembly 182 (hereinafter referred to as "key tag 182"), wherein key tag 182 has an electronically readable identifier stored electronic device 194, which has an electrical contact portion (see Figs. 7 and 12 - 15; Col. 1, lines 57 - 62; Col. 12, lines 50 - 54; Col. 13, lines 3 - 8 and 27 - 45); (b) a key storage unit 52 or key container that is secured electrically-actuated lock mechanism 218 and detects they key set when the key set is stored in drawer 98 (see Figs. 1 and 4; Col. 11, lines 22 - 45; Col. 13, lines 59 - 67; and Col. 14, lines 1 - 10 and 39 - 51); and (c) remote controller 54 having a memory that is updated with at least the identifier of key tag 182 when it is removed from drawer 98 (see Col. 7, lines 14 - 29). Maloney imparts that a user wishing to remove a key set uses remote controller 54 to enter information related to the removal of the key set, such as reason for the removal of the key set and/or work order number (see Col. 22, lines 57 - 67 and Col. 23, lines 1 - 5). Because Maloney teaches that the work order

Art Unit: 2635

number identifies the task to be performed, work order numbers are understood to form a predetermined group of codes corresponding to the purpose of the access.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the PDA or cell phone of Greenman, Pires, and Danler as taught by Maloney because a PDA or cell phone that is used to provide a predetermined code corresponding to the purpose of the removal enables the system to provide a more detailed record of a key set, thereby reducing potential for abuse (see Maloney, Col. 2, lines 4 - 25).

### *Conclusion*

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ♦ Harold (US 6,472,973) teaches a vehicle lock box system comprising a lock box, a portable electronic access device for accessing the lock box, and a central site for generating access reports.
- ♦ Flick (US 6,737,961) teaches a vehicle key storage system comprising a lock box for a plurality of key sets, at least one key set formed by a vehicle key and a key tag, and a token (i.e., a portable electronic access device) for accessing the lock box. The lock box has a plurality of detectors for detecting the key tags.
- ♦ Prado (US 6,867,695) teaches a key storage and tracking system comprising a lock box for a plurality of key sets, at least one key set formed by a key and a key tag, and a "personal" plug unit (i.e., a portable electronic access device) for accessing the lock box. The lock box is able to detect the key tags when the key sets are properly stored within the lock box.

\*\*\*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (571) 272-3062. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.




Art Unit: 2635

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CY



BRIAN ZIMMERMAN  
PRIMARY EXAMINER